

# Samrat Mukherjee

## List of Publications by Year in descending order

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70  
papers

1,346  
citations

304743

22  
h-index

377865

34  
g-index

72  
all docs

72  
docs citations

72  
times ranked

1111  
citing authors

#	ARTICLE	IF	CITATIONS
1	A simple synthesis of amine-derivatised superparamagnetic iron oxide nanoparticles for bioapplications. <i>Journal of Materials Science</i> , 2007, 42, 7566-7574.	3.7	103
2	Microstructural, magnetic, and hyperfine characterizations of Cu-doped cobalt ferrite nanoparticles. <i>Journal of the American Ceramic Society</i> , 2019, 102, 7509-7520.	3.8	76
3	Study of nonlinear optical properties of organic dye by Z-scan technique using He-Ne laser. <i>Journal of Materials Science: Materials in Electronics</i> , 2014, 25, 1410-1415.	2.2	62
4	Solubility Enhancement of Ezetimibe by a Cocrystal Engineering Technique. <i>Crystal Growth and Design</i> , 2014, 14, 4475-4486.	3.0	57
5	Effect of doping of manganese ions on the structural and magnetic properties of nickel ferrite. <i>Journal of Alloys and Compounds</i> , 2016, 668, 33-39.	5.5	57
6	Highly responsive and low-cost ultraviolet sensor based on ZnS/p-Si heterojunction grown by chemical bath deposition. <i>Sensors and Actuators A: Physical</i> , 2021, 331, 112988.	4.1	52
7	Characterization of defects in ZnO nanocrystals: Photoluminescence and positron annihilation spectroscopic studies. <i>Journal of Applied Physics</i> , 2007, 102, 103514.	2.5	46
8	Influence of deposition time on the properties of ZnS/p-Si heterostructures. <i>Materials Science in Semiconductor Processing</i> , 2021, 122, 105471.	4.0	46
9	Disordered surface spins induced large exchange anisotropy in single-phase Sm <sup>3+</sup> ions substituted nickel ferrite nanoparticles. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 489, 165320.	2.3	43
10	Effect of doping different rare earth ions on microstructural, optical, and magnetic properties of nickel-cobalt ferrite nanoparticles. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 435-443.	2.2	43
11	Size dependent exchange bias in single-phase Zn <sub>0.3</sub> Ni <sub>0.7</sub> Fe <sub>2</sub> O <sub>4</sub> ferrite nanoparticles. <i>Journal of Magnetism and Magnetic Materials</i> , 2018, 458, 193-199.	2.3	42
12	Tuning the microstructural, optical and superexchange interactions with rare earth Eu doping in nickel ferrite nanoparticles. <i>Materials Chemistry and Physics</i> , 2020, 241, 122383.	4.0	42
13	Effect of deposition time and complexing agents on hierarchical nanoflake-structured CdS thin films. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 17055-17066.	2.2	38
14	Introducing magnetic properties in Fe-doped ZnO nanoparticles. <i>Applied Physics A: Materials Science and Processing</i> , 2021, 127, 1.	2.3	38
15	Structural, magnetic and hyperfine characterizations of nanocrystalline Zn-Cd doped nickel ferrites. <i>Journal of Magnetism and Magnetic Materials</i> , 2017, 441, 710-717.	2.3	35
16	Role of deposition parameters on the properties of the fabricated heterojunction ZnS/p-Si Schottky diode. <i>Physica Scripta</i> , 2022, 97, 045819.	2.5	34
17	Effect of doping of chromium ions on the structural and magnetic properties of nickel ferrite. <i>Ceramics International</i> , 2016, 42, 7742-7747.	4.8	32
18	Exploring the magnetic ground state of vanadium doped zinc sulphide. <i>Semiconductor Science and Technology</i> , 2019, 34, 105006.	2.0	31

#	ARTICLE	IF	CITATIONS
19	Zn substituted NiFe <sub>2</sub> O <sub>4</sub> with very high saturation magnetization and negligible dielectric loss synthesized via a soft chemical route. Applied Physics A: Materials Science and Processing, 2014, 116, 389-393.	2.3	29
20	A Comparative Investigation of Optical and Structural Properties of Cu-Doped CdO-Derived Nanostructures. Journal of Superconductivity and Novel Magnetism, 2017, 30, 1439-1446.	1.8	28
21	Copper doped nickel ferrite nanoparticles: Jahn-Teller distortion and its effect on microstructural, magnetic and electronic properties. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2021, 263, 114864.	3.5	25
22	Preparation and characterizations of SiO <sub>2</sub> -coated nanoparticles of Mn <sub>0.4</sub> Zn <sub>0.6</sub> Fe <sub>2</sub> O <sub>4</sub> . Journal of Magnetism and Magnetic Materials, 2009, 321, 169-174.	2.3	24
23	Dielectric and electrical characterizations of transition metal ions-doped nanocrystalline nickel ferrites. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	2.3	20
24	Correlations between microstructural and magnetic properties of Gd <sup>3+</sup> -doped spinel ferrite nanoparticles. European Physical Journal Plus, 2020, 135, 1.	2.6	20
25	Gd-doped soft Mn <sup>2+</sup> -Zn nanoferrites: synthesis, microstructural, magnetic and dielectric characterizations. Journal of Materials Science: Materials in Electronics, 2020, 31, 3529-3538.	2.2	16
26	Low temperature route to the multiferroic FeAlO <sub>3</sub> : XRD and Mössbauer characterizations. Hyperfine Interactions, 2008, 187, 101-107.	0.5	14
27	Tuning the microstructural, magnetic and optical properties of Cr substituted nanocrystalline copper-nickel ferrites. Journal of Magnetism and Magnetic Materials, 2020, 498, 166185.	2.3	14
28	Size variation in nanocrystalline Zn <sub>0.2</sub> Ni <sub>0.8</sub> Gd <sub>0.05</sub> Fe <sub>1.95</sub> O <sub>4</sub> ferrites: Exchange bias effect and its correlation with disordered surface spins. Materials Research Bulletin, 2020, 125, 110785.	5.2	14
29	Effect of Jahn-Teller distortion on microstructural and dielectric properties of La based double perovskites. Journal of Alloys and Compounds, 2022, 892, 162204.	5.5	14
30	Evidence of exchange-coupled behavior in chromium-cobalt ferrite nanoparticles. Journal of Magnetism and Magnetic Materials, 2018, 456, 118-123.	2.3	13
31	Canted surface spins driven exchange anisotropy in erbium substituted nickel ferrite nanoparticles. Materials Characterization, 2020, 162, 110203.	4.4	13
32	A novel shape transformation of Fe <sup>2+</sup> -MgO nanocomposites: microstructural, magnetic and hyperfine investigations. Journal Physics D: Applied Physics, 2007, 40, 4425-4430.	2.8	11
33	Defect induced ferromagnetism in luminescent and doped CdS quantum dots. Journal of Materials Science: Materials in Electronics, 2015, 26, 7621-7628.	2.2	11
34	Defect-induced weak ferromagnetism in transition metal-doped ZnO nanoparticles. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	11
35	Large exchange bias effect in NiFe <sub>2</sub> O <sub>4</sub> /CoO nanocomposites. Materials Research Express, 2018, 5, 035029.	1.6	11
36	Optical properties of Silica capped Mn doped ZnS quantum dots. Physica Scripta, 2021, 96, 065802.	2.5	11

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37	The exchange bias effect in $\text{CoFe}_2\text{O}_4/\text{NiO}$ nanocomposites prepared by chemical co-precipitation method. <i>Materials Research Express</i> , 2019, 6, 056105.	1.6	10
38	Impact of $\text{In}^{3+}$ ion substitution on microstructural, magnetic and dielectric responses of nickel-cobalt spinel ferrite nanocrystals. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 17762-17772.	2.2	10
39	Manganese ions substituted ZnO nanoparticles: Synthesis, microstructural and optical properties. <i>Physica B: Condensed Matter</i> , 2022, 627, 413523.	2.7	10
40	Spectroscopic investigation of iron salts doped polyaniline. <i>Journal of Applied Polymer Science</i> , 2009, 114, 2792-2797.	2.6	9
41	The Environmental Impacts and Allocation Methods Used in LCA Studies of Vegetable Oil-Based Bio-diesels. <i>Waste and Biomass Valorization</i> , 2015, 6, 579-603.	3.4	9
42	Super Exchange-Induced Canted Ferromagnetism in Transition Metal-Doped ZnS Quantum Dots. <i>Journal of Electronic Materials</i> , 2017, 46, 1270-1278.	2.2	9
43	Evidence of large exchange bias effect in single-phase spinel ferrite nanoparticles. <i>Physica Scripta</i> , 2020, 95, 095812.	2.5	9
44	Structural, optical and magnetic studies of co-doped mesoscopic ZnO nanoparticles. <i>Journal of Materials Science: Materials in Electronics</i> , 2015, 26, 1053-1059.	2.2	8
45	$\text{Ce}^{3+}$ -doped nanocrystalline cobalt-zinc spinel ferrite: microstructural, magnetic, and optical characterizations. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 6207-6216.	2.2	8
46	Evidence of structural and two magnetic phase transitions in Cu doped $\text{La}_2\text{FeMnO}_6$ double perovskites. <i>Journal of Alloys and Compounds</i> , 2022, 918, 165694.	5.5	8
47	Value stream mapping based on energy and cost system for biodiesel production. <i>International Journal of Sustainable Manufacturing</i> , 2014, 3, 95.	0.3	7
48	On the correlation of the effect of defects on the microstructural, optical and magnetic properties of doped ZnO. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2022, 144, 115370.	2.7	7
49	Luminescence and magnetism studies of strongly quantum confined $\text{SnO}_2$ dots. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 4392-4398.	2.2	6
50	Influence of magnetic ion doping on structural, optical, magnetic and hyperfine properties of nanocrystalline $\text{SnO}_2$ based dilute magnetic semiconductors. <i>Journal of Materials Science: Materials in Electronics</i> , 2017, 28, 3285-3292.	2.2	6
51	Emergence of large exchange anisotropy in Pr doped nanocrystalline spinel ferrites. <i>Materials Chemistry and Physics</i> , 2021, 261, 124208.	4.0	6
52	Correlating the microstructural and optical properties of vanadium ion-doped ZnO nanocrystals. <i>Bulletin of Materials Science</i> , 2022, 45, 1.	1.7	6
53	SYNTHESIS, MICROSTRUCTURAL AND MAGNETIC CHARACTERIZATIONS OF SELF-ASSEMBLED HEMATITE NANOPARTICLES. <i>Modern Physics Letters B</i> , 2012, 26, 1250140.	1.9	5
54	Life Cycle Assessment of Bio-diesel Production—A Comparative Analysis. <i>Journal of the Institution of Engineers (India): Series C</i> , 2014, 95, 143-149.	1.2	5

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55	Evidence of Bound Magnetic Polaron-Mediated Weak Ferromagnetism in co-doped SnO <sub>2</sub> Nanocrystals: Microstructural, Optical, Hyperfine, and Magnetic Investigations. <i>Journal of Electronic Materials</i> , 2016, 45, 3562-3569.	2.2	5
56	Environmental impact of vegetable oil-based bio-diesel by life cycle assessment for sustainable cleaner production. <i>International Journal of Energy Technology and Policy</i> , 2015, 11, 13.	0.2	4
57	Existence of exchange bias and large coercivity in NiFe <sub>2</sub> O <sub>4</sub> /CoO core-shell structured nanoparticles. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 11748-11753.	2.2	4
58	Spin-flop in transition-metal-doped SnO <sub>2</sub> quantum dots. <i>Materials Chemistry and Physics</i> , 2020, 254, 123537.	4.0	4
59	Tailoring the microstructural, magnetic and dielectric properties of vanadium ions substituted nickel ferrite nanocrystals. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 10140-10150.	2.2	3
60	AC conductivity and dielectric analysis of graphite-clay nanocomposite. <i>Canadian Journal of Physics</i> , 2011, 89, 1255-1260.	1.1	2
61	Quantitative assessment of biodiesel production: A model-based scenarios of sustainable development. <i>Journal of Renewable and Sustainable Energy</i> , 2014, 6, .	2.0	2
62	Exchange bias effect and exchange spring-type behavior of core-shell structured MnFe <sub>2</sub> O <sub>4</sub> /Fe <sub>2</sub> O <sub>3</sub> nanocomposite systems. <i>European Physical Journal B</i> , 2020, 93, 1.	1.5	2
63	Samarium Ion-Doped Maghemite Nanoparticles: Synthesis, Microstructural, Optical, and Magnetic Characterizations. <i>Journal of Superconductivity and Novel Magnetism</i> , 2021, 34, 2643-2650.	1.8	2
64	Interfacial spin coupling and exchange anisotropy in core-shell MnFe <sub>2</sub> O <sub>4</sub> /Fe <sub>2</sub> O <sub>3</sub> nanocomposites. <i>European Physical Journal Plus</i> , 2020, 135, 1.	2.6	1
65	Quantum Confined ZnO Nanoparticles: Structural and Optical Studies. , 2011, , .		0
66	Spin disorder induced reentrant ferromagnetism in iron-based nanocomposites. <i>Applied Physics A: Materials Science and Processing</i> , 2012, 106, 507-510.	2.3	0
67	A NOVEL SYNTHESIS ROUTE TO BIO-FUNCTIONALIZED AND MAGNETICALLY ADDRESSABLE FERROGELS. <i>Modern Physics Letters B</i> , 2013, 27, 1350239.	1.9	0
68	ZnFe <sub>2</sub> O <sub>4</sub> /CuO core-shell structured nanoparticles: synthesis, structural and magnetic properties. <i>Applied Physics A: Materials Science and Processing</i> , 2019, 125, 1.	2.3	0
69	Correlating the microstructural, optical, electronic and magnetic properties of Fe <sub>3</sub> -Fe <sub>2-x</sub> Pr <sub>x</sub> O <sub>3</sub> nanoparticles: a defective spinel cubic iron oxide. <i>Applied Physics A: Materials Science and Processing</i> , 2021, 127, 1.	2.3	0
70	Tailoring Magnetic Responses of Nanoscale Integrated Magnetite and Cadmium Sulphide: Microstructural, Magnetic and Hyperfine Studies. <i>Nanoscience and Nanotechnology Letters</i> , 2012, 4, 110-116.	0.4	0